Tidal Marshes and Native Fishes in the Delta: Will Restoration Make a Difference?

Presented by: The Delta Science Program; UC Davis Center for Aquatic Biology & Aquaculture; and California-Nevada Chapter of the American Fisheries Society
Monday June 10th, 2013

Speakers: Peter Goodwin, DSC; Robin Grossinger, SFEI; Don Baltz, Louisiana State University; Larry Brown, USGS; Peggy Lehman, DWR; Si Simenstad, University of Washington; Wim Kimmerer, SFSU; Carl Wilcox, CA DFW; Bruce Herbold, US EPA (retired); Peter Moyle, UC Davis; Matt Nobriga, US FWS.

Main Points:

- Many small projects many not have a same benefits as few large projects due to benefits accrued only at larger scale.
- Much of the habitat lost was the small dead-end channels, not the larger channels.
- The system is much more hydraulically interconnected than it used to be.
- Marsh edge habitat is the most beneficial for fish
- Poorly designed habitat improvements can be worse than no improvements at all
- Tidal flow can be more important than river flow for wetland restoration
- Literature shows that marshes are more often sinks than sources of zooplankton.
- Most of the productivity produced in marshes is consumed within the marsh, generally by clams and small (mostly invasive) fish. Thus habitat restoration is unlikely to export food to the rest of the system.
- While habitat restoration will add productivity to the system, it is not guaranteed to route that productivity to the species we care about.
- It might be beneficial for the BDCP to put habitat in the LSZ where the smelt reside or to improve connectivity between the Delta and Suisun Marsh.
- Much of the current system productivity (food resources) are imported from the ocean.